WASHINGTON STATE DEPARTMENT OF ECOLOGY

Thurston County
WATER CONSERVANCY BOARD
Application for Change/Transfer
OF A RIGHT TO THE BENEFICIAL USE OF THE PUBLIC WATERS OF THE STATE OF WASHINGTON

Report of Examination

NOTE TO APPLICANT: Pursuant to WAC 173-153-130(8), the applicant is not permitted to proceed to act on the proposal until Ecology makes a final decision affirming, in whole or in part, the board's recommendation. It is advised that the applicant not proceed until the appeal period of Ecology's decision is complete.

☐ Surface Water ☒ Ground Water

DATE APPLICATION RECEIVED	WATER RIGHT DOCUMENT NUMBER	WATER RIGHT PRIORITY DATE	BOARD-ASSIGNED CHANGE APPLICATION NUMBER
June 21, 2010	G2-00271C	December 12, 1968	THUR 10-02

NAME
City of Tumwater

ADDRESS (STREET)	(CITY)	(STATE)	(ZIP CODE)
555 Israel Rd. SW	Tumwater	WA	98512

Changes Proposed: ☒ Change purpose ☐ Add purpose ☐ Add irrigated acres ☒ Change point of diversion/withdrawal
☐ Add point of diversion/withdrawal ☒ Change place of use ☐ Other (Temporary, Trust, Interties, etc.)_____

SEPA
The board has reviewed the provisions of the State Environmental Policy Act of 1971, Chapter 43.21C RCW and the SEPA rules, chapter 197-11 WAC and has determined the application is: ☒ Exempt ☐ Not exempt

BACKGROUND AND DECISION SUMMARY

Existing Right (Tentative Determination)

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
	600	60	Irrigation and Temperature Control of 30 acres (March 1 to October 31)
Well 13 (DNR Well)			TRIBUTARY OF (IF SURFACE WATER)

AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
	SW	SE	11	17	2W	23	Thurston

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS USED

S ½ SW ¼ SE ¼ and E ¾ S ½ SW ¼ of Section 11 T. 17 N., R. 2 W.W.M., less runways

PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE,
			11	17	2 W.

Proposed Use

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
	600	60	Municipal Supply, March 1 to October 31
SOURCE City of Tumwater Wells 11 and 15			TRIBUTARY OF (IF SURFACE WATER)

AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
Well 11 82700100100	SE	SE	3	17	2W	23	Thurston
Well 15 12710110300	NE	NE	10	17	2W	23	Thurston

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Area served by the City of Tumwater. The place of use of this water right is the service area described in the currently approved Water System Plan, as approved by the Washington State Department of Health. RCW 90.03.386 may have the effect of revising the place of use of this water right if the criteria in section RCW 90.03.386(2) are met.

PARCEL NO.	¼	PARCEL NO.	¼	PARCEL NO.	¼
N/A	N/A	N/A	N/A	N/A	N/A

Board's Decision on the Application

MAXIMUM CUB FT/ SECOND	MAXIMUM GAL/MINUTE	MAXIMUM ACRE-FT/YR	TYPE OF USE, PERIOD OF USE
	600	60	Municipal Supply, March 1 to October 31

SOURCE	TRIBUTARY OF (IF SURFACE WATER)
City of Tumwater Wells 11 and 15	

AT A POINT LOCATED: PARCEL NO.	¼	¼	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
Well 11 82700100100	SE	SE	3	17	2W	23	Thurston
Well 15 12710110300	NE	NE	10	17	2W	23	Thurston

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Area served by the City of Tumwater. The place of use of this water right is the service area described in the currently approved Water System Plan, as approved by the Washington State Department of Health. RCW 90.03.386 may have the effect of revising the place of use of this water right if the criteria in section RCW 90.03.386(2) are met.

PARCEL NO.	¼	PARCEL NO.	¼	PARCEL NO.	¼
N/A	N/A	N/A	N/A	N/A	N/A

DESCRIPTION OF PROPOSED WORKS

Wells 11 and 15 are already integrated with the City of Tumwater's distribution system.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE:
N/A (no construction required)	N/A (no construction required)	September 1, 2011

REPORT

BACKGROUND

On June 21, 2010, the City of Tumwater filed an *Application for Change* to change the point of withdrawal, purpose of use, and place of use of Water Right Certificate G2-00271. The applications were accepted at an open public meeting on that same date, and the board assigned application number THUR-10-02. **Exhibit A** is a copy of the *Application for Change*.

The project site is located near the Port of Olympia's airport facility in WRIA 13, **Exhibit B** is a map of the general area showing both the current and proposed points of withdrawal.

*Table 1. Attributes of the Water Right as Currently Documented. Water Right Certificate - **Exhibit C***

Name on certificate, claim, permit: *Port of Olympia* Water right document number: G2-00271	
Priority date, first use:	December 12, 1968
Water quantities:	600 gpm and 60 acre-feet/year
Source:	Well 13 (DNR Well)
Point of withdrawal:	SW ¼ SE ¼ Section 11, T. 17 N., R. 2 W., W.M.
Purpose of use:	Ground temperature control and irrigation of 30 acres
Period of use:	March 1 to October 31
Place of use: runways	S ½ SW ¼ SE ¼ and E ¾ S ½SW1/4 of Section 11, T. 17 North., Range 2 W.W.M, less
Existing provisions: None noted *Tentative determination of the water right* The tentative determination is provided on the front page of this report and addressed in the ROE *History of water use* In consideration of this application, the Board reviewed information submitted by the applicant, including affidavits from property owners, aerial photographs, maps, and reports, as addressed in the ROE. *Previous changes* This right has not been previously modified	

SEPA

The governmental action relating to the subject application is exempt from the "detailed statement" preparation requirements of SEPA (WAC 197-11-800(4)). The application involves neither appropriations of one (1) cubic feet per second or more of surface water for irrigation purposes or appropriations of 2,250 gallons per minute or more of ground water for any purpose.

COMMENT AND PROTESTS

Public notice of the application was given in the Olympian on July 19 and 26, 2010. There were no protests received during the 30 day protest period. In addition, no oral and written comments were received at an open public meeting of the board or other means as designated by the board. A copy of the Affidavit of Publication is attached as **Exhibit D.**

INVESTIGATION

The investigation of this change application is based on a site examination, discussions with the City of Tumwater's representatives, review of the information submitted by the applicant, and relevant Department of Ecology records, including water rights, well construction logs, and other hydrogeologic information.

On September 14, 2010, Commissioners Jon Hare and Tye Menser conducted a site examination. They were accompanied by Dan Smith for the City of Tumwater. The group visited the site of the former Well 13, the proposed new withdrawal sites at Wells 11 and 15, and other City wells in the vicinity. Photos of the site visit are included in **Exhibit E**. These well sites are located near the Olympia Airport and the WRIA 13/23 boundary, in Thurston County.

Proposed Points of Withdrawal

Tumwater's water rights are complicated because they have been changed multiple times to optimize use of newer more productive wells. Also, the City's wells have been re-named or re-numbered, so their locations can be difficult to interpret, especially in the Port area.

The City has designated Wells 11 and 15 as the withdrawal points for Water Right Certificate G2-00271. Wells 11 and 15 also are assigned to Ground Water Permit 7278 (**Exhibit F**), which also authorizes withdrawals from Wells 9, 10, and 14, at maximum combined rates of 2,500 gpm and 2,454 ac-ft/yr.

The capacity for each of the five wells, as currently equipped, is shown in Table 1 below. Some of the capacity of Wells 9 and 15 is assigned to other water rights held by the City, so the remaining capacity of the five wells that could be used for Permit 7278 is 3,086 gpm, which is approximately 600 gpm (586 gpm) greater than the currently authorized Qi. Therefore, sufficient current capacity remains for Wells 11 and 15 to cover the entire 600 gpm of G2-00271.

Table 1. Permit 7278 Well Capacities.

Well Number	Assigned To	Equipped Capacity (gpm)	Allocated Elsewhere (gpm)	Capacity Available for Permit 7278 (gpm)
9	Port Wellfield	375	129	246
10	Port Wellfield	485	0	485
11	Port Wellfield	275	0	275
14	Port & Bush Middle School Wellfields	2,350	750	1,600
15	Port Wellfield	480	0	480
Total		**3,965**	**879**	**3,086**

Sources of Supply:

The City of Tumwater acquired the Port of Olympia's water system in August of 1986, along with the Port's Water Right Permit 7278 and Wells 9 and 10. In early 1992, the City and airport systems were fully integrated to allow Wells 9, 10, and Well 15 to supply the City system. In 1993, Well 11 was constructed under this same authorization.

Well 11

Well 11 (ABA 869) is located in the SE ¼ of the SE ¼ of Section 3, Township 17 North, Range 2 West W.M., Thurston County. The well consists of 16-inch casing to 109 feet and a 14-inch stainless steel screen between 109 and 117 feet in the Vashon Advance Outwash deposits (Qva). Pumping test data indicate that the well can sustain a pumping rate of approximately 275 gpm, and up to 300 gpm for short peaking intervals. The estimated aquifer transmissivity at the site is approximately 1,600 ft^2/d (12,000 gpd/ft).

Well 15

Well 15 is located in the NE ¼ NE ¼ of Section 10, Township 17 North, Range 2 West W.M. The well consists of 16-inch casing to a depth of 122 feet and a stainless steel screen between 122 and 155 feet. The well is completed in the Qva. The estimated aquifer transmissivity at the site is 12,000 ft^2/d (90,000 gpd/ft). The well was tested at up to 1,400 gpm, was recommended for long-term pumping at 1,100 gpm, but is presently equipped for 480 gpm.

Water Rights for Proposed Place of Use:

The intent of this filing is to transfer G2-00271C to the City of Tumwater. Tumwater holds numerous water rights that are referenced in the City's approved 2003 Water System Plan (WSP), as well as in the updated plan that is

currently being reviewed. The plan details the system's current water uses, future demand, and existing water rights, as well as source-capacity issues.

Exhibit G is excerpted from the City's Draft 2010 Water System Plan which is the most up-to-date description of the City of Tumwater's current water-right portfolio. The City currently holds water rights with a total Qi of 10,106 gpm and a Qa of 7,400 ac-ft/yr. These include the City's share of recently-transferred Olympia Brewery rights. (However, they do not include the Tumwater Valley Golf Course water right, since that supply is not currently used for the potable system). With its existing water rights the City currently has sufficient water rights to meet its current needs. However, based on the City's projected 20 year demand forecast – which shows a estimated consumption of 7,553 acre-feet, the City will exceed its existing water rights in the next 20-year planning horizon. By the year 2030, the City projects having a deficit of 1,129 gpm and 153 acre-feet per year.

Service Area

The City of Tumwater qualifies as a municipal water purveyor under RCW 90.03.015, with a service area designated by the City's current water system plan.

Tentative Determination

In order to make a change to the water right, the Board must make a tentative determination on the validity and extent of the right and assess what quantities are eligible to be changed or transferred. This evaluation includes as assessment of whether there are any special circumstances that allow a right to remain in good standing despite unauthorized changes in how it was exercised.

Municipal Standing of Water Right G2-00271

While the City of Tumwater is clearly a municipal water supplier, Ecology has concluded - and the WCB concurs, that an irrigation right acquired by a municipal water right supplier does not automatically convert the right to municipal supply. We note however that this water right – which was originally held by the Port of Olympia and used by the DNR and Cascade Conifers, Inc. for the commercial production of seedlings, while it may designate irrigation as the purpose of use it actually allows a water use that is more consistent with an industrial type of use such as would occur at a commercial plant nursery. This interpretation is consistent with the Court of Appeals of Washington, Division 2 in Kim v. Pollution Control Hearing Bd., 115 Wash.App. 157, 61 P.3d 1211 (1993). In Kim, the court considered a water right used for commercial tree propagation to be used for "industrial purposes."

Use of this water right in a facility where the primary purpose was for industrial demands is consistent with municipal water supply purposes as defined by the statute. With the original passage of the Municipal Water Law in 2003 the Departments of Ecology and Health worked to develop a position on how to view water rights that didn't specifically include "municipal" as a purpose of use but nonetheless appeared to qualify as municipal purposes. Examples of these types of rights included projects such as the use of water for municipal golf courses and cemeteries. While new guidance has yet to be developed in the wake of the recent Supreme Court decision that affirmed the constitutionality of the bill, it seems reasonable to consider the actual use of the water as opposed to the owner of the water right defines whether a right is for a municipal supply purpose.

In the case of this particular water right Section 1 (4) (b) provides that a water right qualifies as municipal if it is used for "governmental or governmental proprietary purposes," which is generally defined to include purposes associated with activities traditionally undertaken by governmental entities in their governmental or proprietary capacity. These would include: water provided for sewers, parks and open spaces, city facilities, fire flow, commercial and industrial activities.

There is arguable presumption that with the passage of the Municipal Water Law in 2003 the City would have been eligible to seek a Conforming Document from Ecology reflecting the Municipal status of the certificate, however, as provided by the statute, this step was not legally required since all eligible rights likely would have defaulted to municipal status without the additional administrative step.

Rights held by qualifying municipal water suppliers are legally deemed to be in good standing and as such are eligible to be transferred so long as the transfer does not impair other water users.

Historical Use of Water Right G2-00271

Notwithstanding that this is a water right for municipal water supply purposes – based not only on ownership but the actual nature of the water use, the historical use of water under this right supports a change of the full quantity, and in filing this *Application for Change* the City is requesting that purpose of use be changed from irrigation to municipal so as to make the use of water consistent with the City's use.

The change under consideration is a "defacto" change. This defacto change does not invalidate the water right. Ecology's policy on tentative determinations devotes a special section to defacto changes in Section 7, entitled *Tentative Determinations in the Face of Unauthorized Changes to Water Rights*, which provides that the use of

water in a manner inconsistent with the water-right authorization may not mean that the right is not in good standing.

Water Right G2-00271 was issued to the Port of Olympia for irrigation of 30 acres. The certificate authorizes the withdrawal of 60 acre-feet per year and 600 gpm. The point of withdrawal specified by this certificate is Well 13, which is located in the SW¼ of the SE¼, Section 11. Well 13 was constructed as a high-capacity irrigation well, with a 12-inch casing to a depth of 199 feet. The well was originally equipped to produce 600 gpm, however the well production subsequently decreased.

This well and certificate were acquired by the City of Tumwater in 1991 when the City took over water supply service to the Port property. The City acquired the water right and right to use Well 13 as a municipal production well and extended water lines to connect Well 13 to the water distribution system. The City continued to supply water to Cascade Conifers, Inc., first using Well 13 as the source, then as a municipal customer through 1995 when the facility ceased operations. **Exhibits H and I** includes correspondence between the City of Tumwater and the Department of Ecology.

In 1991, a pumping test indicated that the yield had declined and an attempt was made to redevelop the well; however, it appears that the efforts may have created shifting or slumping in the formation, so the sand problem increased. The City eventually determined that elevated manganese levels and other production problems would limit the well's viability as a municipal production source. The City changed the location of withdrawal under this right in 1991, drawing at the authorized rate and authorized quantities from Wells 11 and 15 instead of the authorized point of withdrawal of Well 13. **Exhibit J** is the Well Decommissioning report that shows Well 13 was properly abandoned in 2005. Given that the transaction transferring control of this right and well from the Port to the City occurred over 20 years ago there is little information available to document actual water use at the original site. The DNR's use of the property ceased over 25 years ago, and Cascade Confers is no longer in business. The City of Tumwater does not have access to power records that may have been associated with the facility – or any evidence to support that the well had a dedicated power source and thus a way to back-calculate water use. While the City took over supplying water to the facility in 1991 it does not maintain electronic records dating back to that period.

In attempting to calculate the total water duty for a site lacking flow-metering data, the Department of Ecology allows the use of reasonable estimates based on agricultural crop-use standards. The water duty assigned for this project was 2 acre-feet per acre. While not specially assessed for seedling cultivation, the water duty appears consistent with other agricultural water demands in the Olympia area, which range from 15.75 inches per irrigated acre for pasture to 20.98 inches for raspberries. The well supplied the Department of Natural Resource's seedling nursery. The site was used for seedling production to handle overflow from the regional facility on Webster Road.

It's important to note, that seedling nurseries have water-use patterns that involve using significantly more water during the plant's early life and less water once plants develop a root structure and are planted in the ground. DNR staff at a different facility, the Webster Road nursery reported that bare-root seedlings generally need water for a couple of hours every other day, depending on the age of the seedling. Once potted, seedlings were generally positioned on plastic seeding with prevented weed growth.

Table 2 approximates what the water budget for the facility may have looked like for irrigation, however it's important to note that water would also have been used in the spring and in late fall for frost protection. This pattern of water use would have used the full 60 AF permitted under the original right with minimal return flow.

Table2. Water Budget

Number of irrigated acres	Crop req. in inches (WIG)	Crop Irrigation Req. (af)	Total Irrigation Req. (af)	App. Efficiency (%)	% Total Evaporated	Total Consumed (af)	Return Flow (af)
30	20.98	**52.45**	**61.71**	85	10	**58.62**	**3.09**

Since the City's peak demand coincides with the irrigation season, the City has requested that the original period of use not be altered therefore there will be no timing related effects associated with this request.

Relinquishment/Abandonment

It is the City's contention that they have exercised this right continuously since its acquisition, except from a different source than originally authorized. The City was aware that they owned it and can document that they acquired both the well and water right from the Port of Olympia. No abandonment has occurred and this right has been regularly and consistently referenced in every Water System Plan produced since 1991, when the right was first acquired.

Finally although originally issued for irrigation, the nature of the irrigation was related to commercial production of trees as opposed to agricultural irrigation making the use an industrial use. Ground Water Certificate G2-00271 was held by the City of Tumwater prior to the enactment of the municipal legislation for a purpose that is considered to be consistent with municipal water supply purposes.

This right remains in good standing and is eligible to be transferred.

Hydrogeology

The hydrogeology of the area around the Port of Olympia property is discussed in the following references:

- Economic and Engineering Services, Pacific Groundwater Group, and Daily Environmental, 1997, *City of Tumwater Wellhead Protection Plan*, September.

- Drost, B.W., Turney, G.L., Dion, N.P., and Jones, M.A., 1998, *Hydrology and Quality of Ground Water in Northern Thurston County, Washington*: US Geological Survey Water-Resources Investigations Report 92-4109 (revised).

- Pacific Groundwater Group, 2001, *Salmon Creek Drainage Basin Conceptual Hydrologic Model,* prepared for URS Corp. and Thurston County Water Waste Management, April 18.

For the following discussion, the area of the proposed transfers includes both the "move from" and "move to" points of withdrawal.

The area of the proposed transfer is underlain by Quaternary-age unconsolidated glacial deposits. The extent and thickness of these units was governed by four glacial episodes and intervening non-glacial periods that occurred during the Pleistocene, as well as by Holocene cut-and-fill alluvial deposits and bedrock topography (Drost, 1998).

The five uppermost hydrogeologic units include, in descending order, the Qvr, Qvt, Qva, Qk, and Qc. Units Qvr, Qva, and Qc are aquifers, and units Qvt and Qk are aquitards.

Unit Qvr (Vashon recessional outwash) is exposed at the ground surface. This unit consists of poorly to moderately well-sorted sand and gravel deposited by the receding Vashon ice sheet. The unit is approximately 25 to 50 feet thick (Drost, 1998). Groundwater in this unit is unconfined and flows mostly toward the Deschutes River (EES et al., 1997; PGG, 2001).

Unit Qvt (Vashon till) is glacially overridden and compacted, sub-round to angular gravel, in a matrix of sand, silt, and clay. The Qvt unit is approximately 10 feet thick, or less (Drost, 1998), and may be not be recognizable or present, such as at the Hytec site north of Well No. 9 (EES et al, 1997). The Qvt unit is behaves hydraulically as an aquitard, although water producing zones in this unit can support some single domestic wells in some places.

Unit Qva (Vashon advance outwash), an aquifer, consists of coarse sandy gravel, fining downward to fine sand, with silty interbeds, that were deposited by the streams emanating from the advancing ice sheet. Interbeds of cobbles and boulders can occur in well-sorted sand and gravel but are limited in lateral extent and thickness. The proportion of silt varies from less than one percent to greater than 5 percent, which affects the hydraulic properties of the formation (EES et al., 1997). This unit is varies from 50 to 100 feet thick. Aquifer transmissivity ranges from 12,000 to 160,000 gpd/ft (1,600 to 21,000 ft^2/d), which variability is related to formation heterogeneities and thickness. Nearly all wells in the area draw water from the Qva aquifer. It is typically confined by the overlying Qvt aquitard. Groundwater in the Qva aquifer flows mostly toward the Deschutes River perennially (EES et al., 1997; Drost et al., 1998; and PGG, 2001).

Unit Qk (Olympia Interglacial; formerly Kitsap Formation) consists predominately of clay and silt, with minor sand, gravel, peat, and wood, commonly greenish. The unit is approximately 50 feet thick (EES, et al., 1997) and behaves hydraulically as an aquitard.

Unit Qc (penultimate glacial deposits), an aquifer, consists of coarse sand and gravel. This unit may have limited thickness in the area. No City of Tumwater wells are completed in this aquifer, which was evaluated to have poor potential in the area of the Bush Middle School Wellfield, directly southeast of the Airport Golf Center.

Recharge to all aquifers in the area originates from local precipitation and vertical leakage between hydrogeologic units. Vertical groundwater flow is generally downward through successively deeper units, except near streams, where it is upward (EES, et al., 1997; Drost, et al., 1998).

Same Body of Groundwater

All the aquifers in the area are hydraulically connected through intervening leaky aquitards and along the margins of the valley alluvium in the Black River and Deschutes River valleys. All the groundwater flow eventually converges to discharge to local creeks and rivers. In that sense, the aquifers can be considered to be the same

source of public groundwater. There has been no need to separately manage aquifers in the area in order to protect water rights, because nearly all withdrawals come from the Qva aquifer. In any case, the Qva aquifer is the source for the original Well 13 and for City of Tumwater's Wells 11 and 15.

Impairment

This application addresses a change of an existing water right that has in effect already happened. The DNR/Cascade Conifer facility is no longer in operation and the water authorized by this certificate is already in use within the City's municipal system. Therefore, because the actual of use is not changing, this request represents no increase in consumptive water use. The subject water right is valid and in good standing.

In order to assess whether water rights in the vicinity of the new point of withdrawal would be impaired, we queried the Department of Ecology's databases to identify water right certificates, claims, and well logs within ¾ mile to 1½ miles from Wells 11 and 15. (**Exhibit K** Well Log Database and **Exhibit L** Water Right Tracking System - WRATS)

Ecology's well log data base indicates that over 130 wells have been drilled in the area.. These wells range in depth from 16 to 344 feet, with the City of Tumwater's Well 7 being the deepest. Over 90 percent of these wells are less than 100 ft deep and most draw water from the Qva aquifer. We note, though, that the area surrounding the new points of withdrawal at Wells 11 and 15 is primarily residential and lies within the City's service area, making the use of private wells unnecessary. Development outside the City's service area is largely medium density subdivisions that are served by water purveyors. Not much of the land is agricultural.

Because no increase in water use is being proposed, there will be no additional effect on water levels in the Qva aquifer. The proposed change in point of withdrawal will stay within WRIA 13 and will move the distribution of drawdown in the Qva aquifer northward approximately 2,000 feet, which will decrease the number of wells affected.

Effects on Surface Water

The current POW lies within the boundary of WRIA 13, the Deschutes River Basin and the proposed POWs at Wells 11 and 15 also lie within WRIA 13. The groundwater divides in the Qvr, Qva, and Qc aquifers do not correspond to the surface-water divide, but lie west of the WRIA boundary, as interpreted from Thurston County's study of groundwater flooding in the Salmon Creek Basin (see County website). Therefore, the original and proposed POWs lie well within WRIA 13's groundwater basin. Also, the new POWs are approximately the same distance from the Deschutes and Black Rivers, so surface-water capture will not change and will move slightly downstream on the Deschutes River.

Minimum instream flows were established for WRIA 13 Deschutes in 1981 (Chapter 173-513 WAC) and in 1988 for WRIAs 22 and 23 Chehalis (Chapter 173-522 WAC). Any groundwater withdrawals with priority dates later than the closure dates stated in the WACs must not impair surface water availability.

Quantities for Transfer

We recommend the transfer of 60 acre-feet and 600 gpm.

CONCLUSIONS [See WAC 173-153-130(6)(d)]

Tentative determination (validity and extent of the right)

This water right is valid, in good standing and eligible to be transferred in those quantities recommended.

Relinquishment or abandonment concerns

We see no grounds for relinquishment or abandonment ; and to the contrary the City has been aware of this water right and taken steps to use it within the supply system.

Hydraulic analysis

Well 13 was completed in the same-body of ground water as the Well 11 and 15.

Consideration of comments and protests

No protests were received.

Impairment

No impairment will result from the transfer. The wells are completed in the same aquifer, very near each other and no direct impacts will occur as a result of this change.

Public Interest

In the evaluation of these applications for change, no detriment to the public welfare has been identified. The statutory criteria for approval of the requested changes are met.

DECISION [See WAC 173-153-130(6)(e)]

Based on conclusions above, the decision of the Board is to approve the City of Tumwater's water right transfers to provide the following changes to Ground Water Certificate G2-00271:

- The point of withdrawal shall be Well 11 and 15
- The rate of withdrawal is 600 gpm, and the annual quantity is 60 acre-feet per year.
- The purpose of use is municipal, with a period of use from March 1 to October 31

PROVISIONS [See WAC 173-153-130(6)(f)]

Meter Installation

An approved measuring device shall be installed and maintained for each of the wells constructed under this water right, in accordance with "Requirements for Measuring and Reporting Water Use," Chapter 173-173 WAC.

Record and Report upon Request by Ecology

Water use data shall be recorded daily. The maximum monthly rate of withdrawal and the annual total volume shall be submitted to Ecology by January 31st of each calendar year.

Water Measuring and Data Reporting

Reported water use data shall be submitted via the Internet. To set up an Internet reporting account, access https://fortress.wa.gov/ecy/wrx/wrx/Meteringx/. If you do not have Internet access, contact the Southwest Region Office for forms to submit your data.

Metering Rule Description and Petition Info

Chapter 173-173 WAC describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation, and maintenance requirements are enclosed as a document entitled "Water Measurement Device Installation and Operation Requirements".

Health Approval Required

Prior to any new construction or alterations of a public water supply system, the State Board of Health rules require public water supply owners to obtain written approval from the Office of Drinking Water of the Washington State Department of Health. Please contact the Office of Drinking Water at Southwest Drinking Water Operations, 243 Israel Road S.E., PO Box 47823, Tumwater, WA 98504-7823, (360) 236-3030, prior to beginning (or modifying) your project.

Authority to Access Project

Department of Ecology personnel, upon presentation of proper credential, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

Development Schedule and Project Completion

The water right holder shall file the notice of project completion when the quantity of water required by the project has been put to full beneficial use. The superseding certificate will reflect the extent of beneficial use within the limitations of the change authorization.

Elements of the project completion inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and compliance with provisions.

You must request a **Project Completion** form from the Department of Ecology. If you cannot complete your project by September 1, 2011, you must contact this office to request an extension.

Signatures

The undersigned board commissioner certifies that he understands that the board is responsible "to ensure that all relevant issues identified during its evaluation of the application, or which are raised by any commenting party during the board's evaluation process, are thoroughly evaluated and discussed in the board's deliberations. These discussions must be fully documented in the report of examination." [WAC 173-153-130(5)] The undersigned, therefore, certifies that he, having reviewed the report of examination, knows and understands the content of this report and concurs with the report's conclusions.

Signed at Olympia, Washington

This 19th day of January 2011

Jon Hare, Board Commissioner
Thurston County Water Conservancy Board

Tye Menser, Board Commissioner
Thurston County Water Conservancy Board

EXHIBITS

Exhibit A	Application for Change No. THUR-10-02
Exhibit B	Map of Project Vicinity
Exhibit C	Water Right G2-00271
Exhibit D	Affidavit of Publication
Exhibit E	Field photos
Exhibit F	Ground Water Permit 7278
Exhibit G	City of Tumwater water right – Excerpts for 2010 Water System Plan
Exhibit H	City of Tumwater – Callison letter 1
Exhibit I	City of Tumwater – Callison letter 2
Exhibit J	Notice of Decommissioning
Exhibit K	Well Drilling Database
Exhibit L	Water Rights in Vicinity

If you have special accommodation needs or require this form in alternate format, please contact 360-407-6607 (Voice) or 711 (TTY) or 1-800-833-6388 (TTY).

Ecology is an equal opportunity employer